Dianne Nielson (left) and Gary Harter (right) closely examine the nanoantenna array prototype that collects solar and residual heat energy that was developed by INL's Steven Novack and Dale Kotter.

Utah officials visit INL to discuss energy systems

By Reuel Smith and Keith Arterburn

Utah Energy Advisor Dianne Nielson, other state officials and energy-efficiency entrepreneur Jon Lear recently visited INL to learn about energy system developments in renewable energy, transportation, carbon management, oil shale conversion and hydrogen production.

The one-day visit was filled with briefings and laboratory tours of technologies and energy projects being considered as possible demonstrations in Utah.

"I'd like to thank this INL team for a very helpful day," said Nielson. "It has been very useful to visit and see the breadth of INL's energy research. You're answering our questions and helping the public sector by making available your research and demonstrations."

Nielson noted that Utah is looking for long-term alternatives to reduce transportation costs for the 2.7 million residents living along the Wasatch Front. She was also keenly interested in INL's work within the Western energy corridor and its vision for regional energy systems development. Nielson noted that the integration of renewable energy with other energy systems within the corridor would be of great value.

Utah officials accompanying Nielson were Sam Lee, manager of Utah State's transportation fleets; Sal Petilos, deputy director of Utah's Department of Administrative Services; and Gary Harter, managing director of Utah's Economic Clusters Program. Jon Lear of Ruby Mountain, Inc., who has worked closely with both Utah government and INL on green technologies, also accompanied the delegation.

"I didn't know INL's energy research was so diverse," said Gary Harter. "I can see that our energy economic development cluster needs to be part of a greater regional approach."

The day wrapped up with discussions led by Nielson about topics of common interest and potential energy demonstration projects in Utah that address several of the state's energy and environmental concerns. "In the future, the paradigm of how we develop and use our energy resources will shift," said Nielson.

Potential demonstrations could involve developing a natural gas liquefaction plant along I-15, advancing hybrid and plug-in hybrid electric vehicle use, applying nanoantenna technology to capture solar and infrared light, advocating community-based heat pump engineering to heat and cool homes, integrating wind energy systems into carbon capture and management systems, producing hydrogen through high-temperature electrolysis to augment the production of synthetic fuels, and developing environmental and operational codes for oil shale development.

INL's Kerry Klingler, who has been involved in clean and green energy projects with Lear for many years, said he's excited to see INL's reputation as an independent energy broker being advanced within higher levels of Utah state government.

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